

## **REMARKS**

As a preliminary matter, the PTO-892 which accompanied the office action mailed June 16, 2004 has a typographical error, as it cited U.S. 4,573,548 (Holland) whereas it appears that the Examiner intended to cite U.S. 4,573,458 (Lower). The Examiner is requested to issue a corrected PTO-892. (Second Request)

Claims 1, 3-5, 7-9, 11-13 and 15 stand rejected under 35 U.S.C. 103 as being unpatentable over Frost (U.S. 3,744,061) in view of Shaw (U.S. 3,918,100). Applicant has canceled Claims 1, 3-5, 7-9, 11-13 and 15 in favor of new claims 21 and 22 and respectfully traverses the rejection as applied to claims 21 and 22.

The cited references alone or in combination fail to disclose or suggest a step of activating a surface layer of a component consisting essentially of a cobalt chrome alloy, a feature of claims 21 and 22. Correspondingly, the cited references fail to disclose or suggest the recited step of activating the surface layer of a component by applying a layer of iron thereto, a feature of claim 21. Similarly, the cited references fail to disclose or suggest the recited step of activating the surface layer of a component by exposing the surface layer to a gaseous hydrogen halide mixture.

Still further, cited references alone or in combination fail to disclose or suggest a step of carburizing the activated surface layer of the component at a temperature and for a time insufficient for carbides to form on the surface layer.

For at least these reasons, Applicant respectfully requests that the rejection as applied to claims 21 and 22 be reconsidered and withdrawn.

Claims 1, 3-5, 7-9, 11-13 and 15 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sioshani (U.S. 5,123,924).

Shioshani discloses a patentably distinct method for hardening a surface of a cobalt chrome component. The process comprises a step of ion implantation using an ion beam. See col. 5, lines 55-59. The next step of Shioshani's process involves creating a vacuum environment. See, col. 6, lines 8-14.

Shioshani fails to disclose or suggest a step of activating a surface layer of a component consisting essentially of a cobalt chrome alloy, a feature of claims 21 and 22. Correspondingly, Shioshani fails to disclose or suggest the recited step of activating the surface layer of a component by applying a layer of iron thereto, a feature of claim 21. Similarly, Shioshani fails to disclose or suggest the recited step of activating the surface layer of a component by exposing the surface layer to a gaseous hydrogen halide mixture.

Still further, Shioshani fails to disclose or suggest a step of carburizing the activated surface layer of the component at a temperature and for a time insufficient for carbides to form on the surface layer.

For at least these reasons, Applicant respectfully requests that the rejection as applied to claims 21 and 22 be reconsidered and withdrawn.

It is believed that the above Remarks represent a complete response to the Office Action and that the Application is now in condition for allowance, and such favorable determination is requested.

In the event Applicant has overlooked the need for an extension of time or payment of fee, Applicant hereby petitions therefore and authorizes that any charges be made to Deposit Account No. 50-2779, ZIMMER TECHNOLOGY, INC.

If any questions regarding this Application should arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

ZIMMER TECHNOLOGY, INC.



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